Tool Checklist For ICF Block Installation

- □ Hand saw, folding pruning saw or conventional rip saw
- □ Portable power saw
- □ Keyhole saw
- □ Table saw (optional)
- □ Tape measure
- □ Cordless driver drill and appropriate bits
- □ Hammer drill
- □ Rebar tie tools ("Yankee" twist type preferred)
- □ Hammer
- □ Framing square
- □ 2' (610mm) spirit level
- □ 6' (183mm) spirit level
- □ Laser level, water level, or transit
- □ Plumb bob
- □ Mason's line (Enough to circle entire structure)
- □ Chalk line
- □ Foam gun
- □ Rebar bender and cutter
- □ Scaffold planks
- □ Wall alignment & bracing system
- □ Steel stakes to anchor alignment braces (n/a if bracing off a slab)

Tool Checklist For Concrete Pour

- □ Concrete pencil vibrator, 1" (25mm) maximum head size with 10-14' (3-4.26m) shaft
- □ Rubber gloves
- □ Hard hats
- □ Concrete finishing tools
- □ Flat shovels for spill cleanup

Note: Keep spare a concrete pencil vibrator head and shaft on hand.

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Tool Checklist For Utilities Installation

- □ Hot knife (for electric box cutout)
- □ Electric chain saw (for cutting channels for electrical wiring and plumbing)
- □ Foam dispensing gun and foam

Material Checklist

- □ Reinforcing steel as required and accessories, e.g. Alleguard's HV hooks, rebar ties, stirrups
- □ ICF screws for alignment bracing attachment to ICF blocks (coarse thread 2" (51mm) and 3" (76mm))
- □ Concrete screws 1-1/2" (38mm) to 1-3/4" (44mm) to attach foot of alignment braces to concrete slab
- □ Material for rough openings (i.e. standard 2-by lumber or plywood for fabricating wood bucks, and nails or spikes to anchor the buck)
- □ Anchor bolts, nuts, and washers or Simpson Strong-tie® ICFVL ledger connector system
- □ PVC sleeves for mechanical and/or electrical fixtures
- □ OSB or plywood to use to bridge cut joints, or removed webs, block out for anchor bolts, etc.
- □ Low-expansion, polyurethane construction spray foam adhesive
- □ Waterproofing and drainage membrane

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10 Step ICF Construction Guide

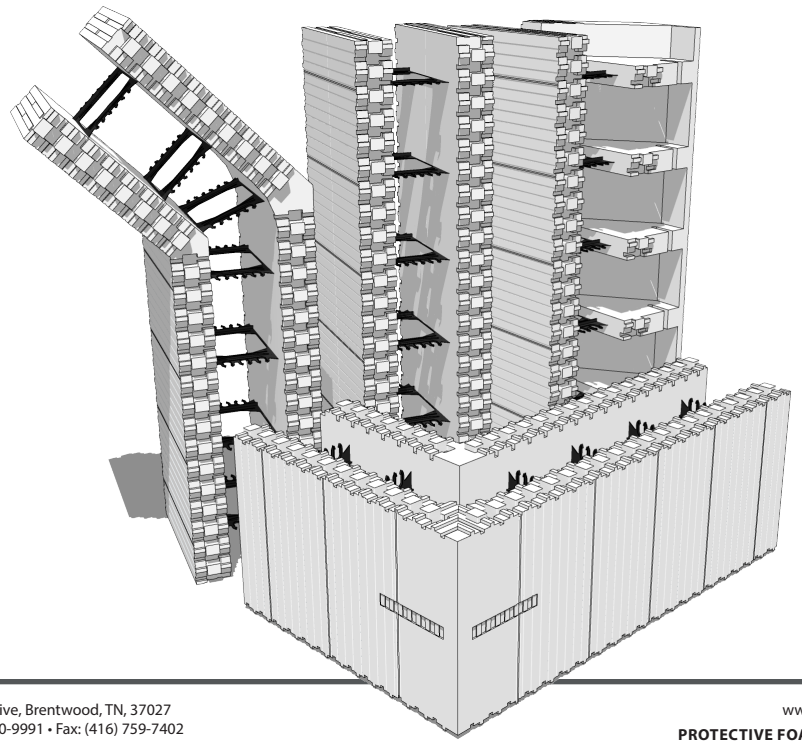
The following manual is a condensed version of the Amvic™ ICF Installation Manual. It is a useful tool to take with you to the jobsite as a reminder of the various steps that are involved in ICF construction. With the right knowledge, tools and materials, your ICF project will become a more comfortable, energy efficient and sustainable building.

All Amvic™ forms are designed with FormLock™ technology on all edges of the form. FormLock™ is a pre-formed interlocking system that holds the courses of block securely together. This prevents movement of the forms during concrete placement and concrete leakage during pouring.

Within the Amvic™ ICF product line, straight, 90° corners, and 45° corner forms are available as well as various brick ledge, double taper top and radius forms.

In order to ensure the success of your ICF installation, Alleguard offers a unique training program which covers the basics of ICF construction from the footing to the roof including floor and roof connections, consolidation, proper rebar placement and much more. Training is available through live and on demand webinars along with on-site training for specific projects.

For more information on training visit:
www.alleguard.com/training



18 AUGUST 2023

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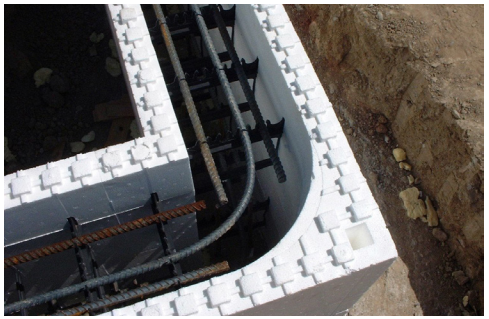
Step 1

Plan the outline of the blocks and the location of door and window openings on a conventional footing or a slab that is level, straight and square. Rebar should extend upward at least 24” (610mm) from the footing into the cavity of the block or as per structural requirement.

Step 2

Place the first corner blocks at each corner, then lay the straight blocks toward the center of each wall segment. On the first course, use zip ties on the webs to connect the blocks and pull them snugly together. Following this, install horizontal rebar by placing it in the clips at the top of the internal webs within the block cavity. The clips hold the rebar securely and eliminate the need for wire tying. (Repeat this process for each course of block).



Step 3

Install the second course of blocks by reversing the corner blocks, so that the second course of block is offset from the first, in a running bond pattern. At this point check for level across all of the blocks. If the courses are not level, use shims or trim the block as required.

Step 4

Install window and door frames (bucks) at each location where an opening is required; cut and fit the ICF blocks around them. Bucks are used to hold back the concrete and stay in place permanently providing a nailing surface for the installation of windows and doors. Pressure-treated lumber or vinyl bucks may be used.

Step 5

Install additional courses of block by continuing to overlap the courses so that all joints are locked both above and below by overlapping blocks.

Step 6

Install alignment bracing along the entire interior (recommended) of the wall perimeter. This ensures that the walls are straight and plumb and allow alignment adjustment before and during the pour. The bracing also serves the dual purpose of providing a secure and safe framework to support scaffolding planks once five courses have been stacked.

Step 7

Stack the block to the full wall height for single story construction, or to just above floor height for multi story construction. Cut the vertical rebar to length and begin installing it from the opening at the top of the wall, through the spaces between the horizontal rebar.

Step 8

Pour the concrete into the stacked walls using a boom pump. Do this in layers approximately 3-4’ (0.9-1.2m) at a time, circling the structure until the top of the wall is reached. Use a mechanical pencil vibrator (stinger) to vibrate the concrete and remove all air pockets within the wall. Up to one story can be poured each day using this method.

Step 9

Screed off the concrete until it is even with the block top and then wet set the anchor bolts into the concrete top. These bolts will be used later to install the top plate (mud sill) for the installation of floor joists, rafters or trusses.

Step 10

Remove bracing after the concrete has cured, then proceed with the next stages of construction.

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